RANCHO SANTA ANA BOTANIC GARDEN
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CERCOCARPUS MINUTIFLORUS

SAN DIEGO MOUNTAIN-MAHOGANY

RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

Number 66 April 7, 1944

CERCOCARPUS MINUTIFLORUS
SAN DIEGO MOUNTAIN-MAHOGANY

Rosaceae Rose Family

An evergreen shrub 6-12 ft. high, usually with a narrow, graceful crown formed by several to many nearly vertical branches. Leaves alternate, but borne on short, spur-like branchlets mostly less than 1 in. long, thus appearing fascicled, apparently glabrous, but with a few scattered hairs; petioles up to $\frac{1}{4}$ in. long; blades coriaceous, obovate, cuneate at base, serrately-toothed on upper half, rarely over 1 in. long, pinnately veined, glossy dark green and convex above, slightly yellowish-green beneath. Flowers cream-colored, arising from winter buds, several in a cluster on an abbreviated branchlet; calyx pedicel-like for about $\frac{1}{4}$ in., abruptly expanded into a hemispheric, 5-toothed cup about 3/16 in. across; petals none; stamens numerous, in about 3 rows on inner face of cup which becomes broad and shallow as flower matures; style 1. Fruit a hairy achene surrounded by the persistent, brown, sheath-like basal portion of calyx; body of achene about $\frac{1}{4}$ in. long 1/16 in. thick, tail (elongated style) about 1 in. long, twisted or curved and covered with very light-colored hairs about 3/16 in. long. In germination cotyledons appear above ground, are linear, $\frac{3}{8}$ in. long; next few leaves opposite, coarsely-toothed in upper half, cuneate at base. $\frac{1}{4}$-$\frac{1}{2}$ in. long, at first densely hairy, but soon practically glabrous. Flowers in February and March; fruits in July and August.

The genus *Cercocarpus* (from two Greek words meaning shuttle and fruit) consists of about 12 species (one authority recognized 20 species) of the western United States and Mexico. California has 6 species, of which 2 are restricted to the islands off the coast; the others are largely widespread.

Cercocarpus minutiflorus (meaning small-flowered) was described in 1910 by Dr. LeRoy Abrams (Professor of Botany at Stanford University and author of An Illustrated Flora of the Pacific States, 1874-) based upon a collection he had made "near San Dieguito (Bernardo), May 4, 1903." The above locality is about 5 miles south of Escondido, San Diego Co. This species is common in San Diego Co. and extends into northern Baja California. It is scattered over the hillsides and slopes either in full sun or partial shade, and is largely confined to the coarse, granitic-type soils, so characteristic of the San Diego region. The only other species of *Cercocarpus* in this region is *C. betuloides*. The two are much alike in growth habit, size of leaves and flowers, but are readily distinguished in that the leaves of *C. minutiflorus* are bright green above, yellowish beneath, and practically without hairs, whereas, those of *C. betuloides* are usually dull green above and more or less whitened beneath with very short hairs. Leaves of *C. minutiflorus,* like those of most other species of the genus, are palatable to deer and livestock, and in many areas are kept severely pruned, resulting in compact growth. Following fires the species stump-

sprouts and a foot or two of new growth is often made in late summer and fall, even before the rains. The small, but abundant flowers give the plants a creamy-yellow cast in spring, while in summer the hairs on the tails of the achenes sparkle in the sunlight.

Numerous common names have been applied to the various species of *Cercocarpus*. These include Mountain-Mahogany, Hard-Tack, Mountain-Ironwood and Sweet Brush. Most of these names refer to the extremely hard wood and are probably all used to some extent for *C. minutiflorus*.

Propagation of *C. minutiflorus* is easily accomplished from seeds (achenes). Other species are said to be readily propagated from green-wood cuttings under glass, but we have not tried this method for this species. Seeds require no treatment prior to planting. They should be planted in the earily fall or spring in flats in a mixture of sand, loam and peat moss. They germinate within a few weeks and the seedlings are easily transplanted. This species normally grows in areas that are dry throughout the long summer period, and when once established in the average California garden the plants require no irrigation. However, unlike many other California native shrubs, this species thrives when watered throughout the year.

There are three principal plantings of *C. minutiflorus* at Rancho Santa Ana Botanic Garden. One is on the east slope of Pine Canyon in sandstone, and is perhaps too dry for the best development of the plants. A second is an informal hedge in heavy adobe near the Assembly Hall. These plants have done well for over 12 years; numerous seedlings have volunteered; and only in the last year have a few plants showed a deline. The third planting is mainly on an artificial bank constructed of huge sandstone rocks and clay soil. Some of these plants are also over 12 years old, while many others are volunteer seedlings. A few of these old plants are now beginning to die.

C. minutiflorus has several characteristics which make it useful for California gardens. It is evergreen, rather slender in growth form, seldom exceeds 10 or 12 ft. in height, can be cut back at the top to thicken the growth, or it may be kept under control by removing one or more of the largest branches each year by cutting them off at the ground level and allowing some of the numerous basal suckers to form a new top. It makes a useful background shrub or an informal hedge. There is also every reason to believe that it could be kept trimmed as a narrow hedge 4 to 10 ft. in height.

We have grown several other species of *Cercocarpus* at the Garden. *C. alnifolia* and *Traskiae* are much alike in their vigor of growth, large size and large leaves. The former has bright green, nearly glabrous leaves, while the latter has leaves dull green above and whitened beneath. *C. betuloides* has an insular variety *multiflorus* which is very like *C. alnifolia*. *C. ledifolius* is of extremely slow growth and is probably unsuited to lowland conditions. *C. intricatus* is of no ornamental interest and we have been unable to propagate it.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general welfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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